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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,093	06/13/2007	Simon Davies	713-1287	9992

33712 7590 06/03/2011

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EXAMINER	
CHAUDRY, ATIF H	

ART UNIT	PAPER NUMBER
3753	

MAIL DATE	DELIVERY MODE
06/03/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,093	DAVIES ET AL.	
	Examiner	Art Unit	
	ATIF CHAUDRY	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-23 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *25* is/are allowed.

6)☒ Claim(s) *1,2,4-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the claims

Applicant's amendment as filed on 03/06/2011 has been entered. The amendment cancelled claims 3, 24, 26-33 and amended claims 1, 2, 4-23, and 25. Currently claims 1, 2, 4-23, and 25 are pending in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. (5282493) in view of Gifford et al. (2630291) alone or further in view of Truitt et al. (6915705).

4. Schawrtz et al. (Fig. 3) discloses a pressure monitoring device comprising inlet and outlet with coupling means, a digital pressure gauge 46 (col 3, line 7) a valve 20 arranged on line with the gauge, the valve having adjustment means accessible from outside of housing, the pressure takeoff point being downstream of the valve (when the fluid flow is from top to the bottom). Since the claims are drawn to a pressure monitoring device, therefore the paint spay gun and compressed air supply are seen as intended use terms which hold no patentable weight. In the recitation " *means for coupling the air inlet with an outlet of a compressed air supply and means for coupling the air outlet with an air inlet of the paint spray gun*", only the means for coupling are seen as structural limitations.

Schawrtz et al. discloses a pair of cavities at the inlet and outlet but fails to disclose a segmental portion. Gifford et al. (Fig. 1) teaches a control valve having a pair of cavities leading to inlet 6 and outlet 8, each cavity having a circular section at the inlet and outlet ends and a segmental section (sections on either side of plain 10 including the valve seat and bore) which are separated from the circular sections by tapered sections (for example the tapered section on top of diagonal plate 4) wherein the chords (plains on either side of horizontal plate 10) are in parallel alignment and a bore 12 passing through the segmental sections, the bore axis being orthogonal to the longitudinal axis of the valve. The cavities are substantially identical. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device

disclosed by Schawrtz et al. with a body having segmental and tapered sections as taught by Gifford et al. in order to reduce turbulence in the body.

Schawrtz et al. fails to disclose positioning the pressure take-off point at a location of low turbulence. However, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have positioned the pressure take-off point at a location of low turbulence since avoiding turbulence at pressure take-off point is well-known objective in the art. Alternatively, Truitt et al. (col 7, line 4-10) teaches positioning a pressure take-off point of a sensor in a region of low turbulence. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Schawrtz et al. with a pressure take-off point positioned at a location of low turbulence as taught by Truitt et al. in order to increase accuracy.

5. Claims 1, 2, 4-7, 9-15, 17-21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis Rogers (1652051) in view of Gifford et al. (2630291) further in view of Truitt et al. (6915705).

6. Regarding claims 1, 2, 4-7, 9, 10, 12, 13, 17, and 18, Curtis Rogers (Fig. 1) discloses a pressure monitoring and control device for a compressed air supply system having a pressure gauge 10 downstream of a flow control valve 30 orthogonally opposite and in line with each other, inlet and outlet also being in line with each other.

Curtis Rogers discloses a pair of cavities at the inlet and outlet but fails to disclose a segmental portion. Gifford et al. (Fig. 1) teaches a control valve having a pair of cavities leading to inlet 6 and outlet 8, each cavity having a

circular section at the inlet and outlet ends and a segmental section (sections on either side of plain 10 including the valve seat and bore) which are separated from the circular sections by tapered sections (for example the tapered section on top of diagonal plate 4) wherein the chords (plains on either side of horizontal plate 10) are in parallel alignment and a bore 12 passing through the segmental sections, the bore axis being orthogonal to the longitudinal axis of the valve. The cavities are substantially identical. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Curtis Rogers with a body having segmental and tapered sections as taught by Gifford et al. in order to reduce turbulence in the body.

Curtis Rogers fails to disclose positioning the pressure take-off point at a location of low turbulence. However, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have positioned the pressure take-off point at a location of low turbulence since avoiding turbulence at pressure take-off point is well-known objective in the art. Alternatively, Truitt et al. (col 7, line 4-10) teaches positioning a pressure take-off point of a sensor in a region of low turbulence. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Curtis Rogers as modified with a pressure take-off point positioned at a location of low turbulence as taught by Truitt et al. in order to increase accuracy.

Since the claims are drawn to a pressure monitoring device, therefore the paint spay gun and compressed air supply are seen as intended use terms which hold

no patentable weight. In the recitation " *means for coupling the air inlet with an outlet of a compressed air supply and means for coupling the air outlet with an air inlet of the paint spray gun*", only the means for coupling are seen as structural limitations.

7. Regarding claim 19, the method of manufacturing the device does not hold patentable weight since "If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process".

8. Regarding claim 23, adjusting the resolution of the pressure gauge would have been obvious to a person of ordinary skill in the art.

9. Regarding claims 20 and 21, the choice of material (such as zinc) and the sealing strength of housing (such as having IP66 integrity) would have been a matter of obvious choice to a person of ordinary skill in the art based on particular application and work environment.

10. Regarding claims14 and 15, Curtis Rogers as modified with Gifford et al. fails to disclose optimal values of angles of the tapered section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the optimum ranges of the taper claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

11. Regarding claim 11, Curtis Rogers as modified with Gifford et al. fails to disclose relative dimensions of chord surface and arc of the segments. However, it would have

been obvious to a person having ordinary skill in the art at the time of the invention to have provided a longer chord surface based on particular application and space requirements.

12. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis Rogers (1652051) in view of Gifford et al. (2630291) and Truitt et al. (6915705) further in view of Henry (2718373).

13. Curtis Rogers as modified with Gifford et al. discloses substantially identical tapered sections and cavities but fails to disclose different angles of taper. Henry (Figure) teaches a valve similar to Gifford et al. but with different tapers on each side. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Curtis Rogers as modified with Gifford et al. with different angles of taper on either side of valve as taught by Henry in order to provide more space in the segment containing the valve head to accommodate the valve head. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the optimum taper angles claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable dimensions and ranges involves only routine skill in the art.

14. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis Rogers (1652051) in view of Gifford et al. (2630291) and Truitt et al. (6915705) further in view of Linder (3059858).

15. Curtis Rogers fails to disclose details of the valve. Linder (Fig.) teaches a spray gun having a compressed air supply controlled by a threaded needle valve 24. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Curtis Rogers with a threaded needle valve as taught by Linder as a well-known control valve.

Allowable Subject Matter

1. Claim 25 is allowed.

2. The prior art fails to disclose a paint spray gun having a trigger, a nozzle, an air spreader valve and an paint flow adjusting valve and an inlet connected to a flow monitoring device, wherein the flow monitoring device comprises a gauge, a valve and a pair of circular cavities connected to a pair of segmental portions by pair of tapered portions; the tapered portions tapering from circumference of the circular portions to the chords of segmental portion and a pressure take off point downstream of the valve.

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. Regarding claim 1, Truitt et al. has been cited to show prior art teaching of positioning a pressure take-off point of a sensor in a region of low turbulence.

2. Applicant's argument that "Gifford et al. is silent regarding reduction of turbulence and therefore there is no motivation to combine the references" is not persuasive since in considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art

would reasonably be expected to draw therefrom [MPEP 2144.01]. In this case, Gifford et al. teaches a valve body with smoother flow passages; therefore one skilled in the art would reasonably expect it to have less turbulence.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATIF CHAUDRY whose telephone number is (571)270-3768. The examiner can normally be reached on Mon-Fri 8-5 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on (571)272-4913. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Atif H Chaudry/
Examiner, Art Unit 3753

/STEPHEN M HEPPERLE/
Supervisory Patent Examiner, Art Unit 3753

6/1/2011